HARMONIC GENERATION MICROSCOPY

ABSTRACT OF THE DISCLOSURE

A harmonic generation microscopy employs a laser device that emits a laser beam having a predetermined wavelength that causes no autofluorescence in a biological sample and that, after excited, induces both the second and third harmonic waves. The laser beam is projected onto a sample and an observation beam from the sample is received. The observation beam is directed through a splitter to separate the second harmonic wave and the third harmonic wave both of which are then converted into corresponding electrical signals. The electrical signals are fed to a computer-based image processing equipment to form an image of the sample on the basis of the second and third harmonic waves.